

## **ABSTRACT**

The present invention includes a number of structural analogues of UK-1. A comparison of the anticancer activity of the UK-1 analogues with their ability to inhibit  
5 the growth of methicillin-sensitive and methicillin-resistant *Staphylococcus aureus* demonstrates that a structurally simplified analogue of UK-1 retains the natural product's selective activity against cancer cells. Structurally conservative changes to UK-1 that diminish  $Mg^{2+}$ -binding ability may result in a dramatic decrease in cancer cell cytotoxicity. The results may establish a minimum structural pharmacophore as well as a  
10 functional role for  $Mg^{2+}$ -binding in the selective cytotoxicity of UK-1.

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